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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,291	01/23/2004	James D. Vidrine	22948.00	4682

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EXAMINER

VIDAYATHIL, TRESA V

ART UNIT PAPER NUMBER

3746

DATE MAILED: 12/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/762,291	VIDRINE, JAMES D.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Tresa V. Vidayathil	3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The Information Disclosure Statement (IDS) submitted on January 23, 2004 is acknowledged. The IDS meets the requirements of 37 CFR 1.97, 1.98 and MPEP § 609, and therefore, the disclosed references have been considered.

### ***Drawings***

2. The drawings are objected to because: 1) Figure 1, Figure 2, and Figure 3 do not show liquid discharge line 26 opening into chamber 12a as indicated in the disclosure (Page 5, Line 9); and 2) Element 26 in Figure 2 points to the wall of chamber 12, but it should point to the liquid discharge pipe. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either

"Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

3. The disclosure is objected to because of the following informalities:
  - a. Text "and 5,004,405 (Breslin). Disclose" should be changed to "and 5,004,405 (Breslin) disclose" (Page 1, Line 18).
  - b. Text "sits on air inlet nipple" should be changed to "sits on an air inlet nipple" (Page 2, Line 16).
  - c. Figure 4 is not a plan view (Page 4, Line 6). It is a side view.
  - d. Text "upwardly toward end 16a" should be changed to "upward toward end 16a" (Page 5, Line 15).
  - e. Text "begins to move upwardly it becomes" should be changed to "begins to move upward, it becomes" (Page 5, Line 22).

Appropriate correction is required.

### ***Claim Objections***

4. Claims 1, 7, 11, 13, and 14 are objected to because of the following informalities:

- a. A comma should be placed after the text "a compressed air line" (Page 7, Claim 1).
- b. A comma should be placed after the text "having double walls, an open bottom" (Page 9, Claim 7).
- c. A comma should be placed after the text "a compressed air line" (Page 10, Claim 11).
- d. Claim 13 contains repetitive wording "as recited as recited." The repetitive terms should be removed (Page 11, Claim 13).
- e. A comma should be placed after the text "having double walls, an open bottom" (Page 11, Claim 14).

Appropriate correction is required.

5. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Claims 3 and 12 refer to a valve seat on the plunger that engages a head gasket seat and a beveled head plate gasket. The valve seat is not disclosed in the specification. The specification only refers to "a gasket or the like 23" for sealing with the head seat 18 and the head plate gasket 18a. Valve seats and gaskets are not interchangeable in the art.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

First, the applicant has not enabled the use of the apparatus in Claims 1-17, with respect to the pump cycle. The applicant states that “[t]he rising liquid L causes the plunger to be buoyant enough such that the air pressure pushes the plunger upwardly toward end 16a.” The apparatus as taught by the figures functions by: 1) liquid entering through the liquid inlet; 2) the rising liquid causes plunger 22 to rise off nipple 24a; 3) compressed air is released into tube 16 and chamber 12a, and the air escapes through the liquid inlet; and 4) liquid continues to fill tube 16 and chamber 12a until plunger 22 rises and seals closed the liquid inlet. From the moment the plunger rises off the nipple and until the plunger seals the liquid inlet, the compressed air rises and escapes through the liquid inlet. It is the buoyancy force provided by the liquid that pushes plunger 22 toward the liquid inlet.

The applicant also states that “[w]hen all air and liquid has been discharged, plunger 22 falls and is reseated on nipple 24a to begin another pumping cycle” (Page 6, Line 2). According to the disclosure, when the plunger is not seated, there is a continuous

supply of compressed air entering the chamber through the nipple (Page 6, Line 1).

Therefore, the apparatus as taught by the figures functions by: 1) plunger 22 rising and sealing closed the liquid inlet when it reaches head seat 18 and head plate gasket 18a; 2) compressed air continues to enter tube 16 and chamber 12a, and the air pressure ejects liquid into the liquid discharge line 26; 3) plunger 22 drops and the seal with head seat 18 and head plate gasket 18a is broken; 4) air escapes through the liquid inlet and due to the resulting pressure drop, liquid ceases to be pumped out of chamber 12a; 5) liquid enters tube 16 and chamber 12a at the liquid inlet; and 6) the pumping cycle returns to Stage 1. The pump cycles, but the plunger never reseats on nipple 24a. Instead, the plunger oscillates near the liquid inlet. At Stage 4, it is also conceivable that due to the pressure loss in tube 16 and chamber 12a, a portion or all of the liquid in liquid discharge line 26 reenters chamber 12a.

Second, the valve seat in Claims 3 and 12 is not enabled because it is not disclosed in the specification.

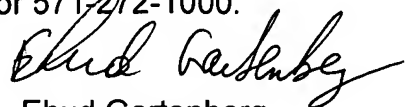
8. The condition of the disclosure and claims prevented the application of prior art, see rejection under 35 U.S.C 112, 1<sup>st</sup> paragraph above. However, to the extent that the invention as disclosed could be understood, a search was carried out, and relevant prior art is cited on PTO Form 892. The lack of a rejection over prior art should not be interpreted as an indication that the application has allowable subject matter.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tresa V. Vidayathil whose telephone number is (571) 272-3436. The examiner can normally be reached on 9AM - 7:30PM, Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ehud Gartenberg can be reached on (571) 272-4828. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Ehud Gartenberg  
Supervisory Primary Examiner  
Art Unit 3746



Tresa V. Vidayathil

EHUD GARTENBERG  
SUPERVISORY PATENT EXAMINER